

WHAT IS CLAIMED IS:

1. An optical cursor controller comprising:
 - an operating lens having an operating surface that permits movement of an object thereon;
 - 5 a light source operable so as to radiate light that is directed to said operating lens, wherein reflected light reflected by the object on said operating surface contains an image of the object on said operating surface; and
- 10 a light processing unit for receiving the reflected light, monitoring the image of the object contained in the reflected light to detect movement of the object on said operating surface, and generating cursor control signals in accordance with detected movement of the object on said operating surface.
- 15 2. The optical cursor controller as claimed in Claim 1, further comprising a converging lens disposed between said operating lens and said light processing unit for converging the reflected light prior to receipt by said light processing unit.
- 20 3. The optical cursor controller as claimed in Claim 1, wherein said operating surface of said operating lens is a convex surface.
- 25 4. The optical cursor controller as claimed in Claim 1, wherein said operating lens has a magnifying power ranging from 1 to 6 times.
5. The optical cursor controller as claimed in Claim

1, wherein said operating lens has a thickness not greater than 2 millimeters.

6. The optical cursor controller as claimed in Claim 1, wherein said light source includes a light emitting diode.

7. The optical cursor controller as claimed in Claim 1, wherein said operating surface of said operating lens and said light processing unit are spaced apart from each other at a distance ranging from 7.30 to 7.60 millimeters along an optical axis.

10 8. An optical cursor controller comprising:

a housing formed with a lens-mounting hole therethrough;

15 an operating lens mounted in said lens-mounting hole and having an operating surface accessible from an exterior of said housing, said operating surface permitting movement of an object thereon;

20 a light source mounted in said housing and operable so as to radiate light that is directed to said operating lens, wherein reflected light reflected by the object on said operating surface contains an image of the object on said operating surface; and

25 a light processing unit mounted in said housing, receiving the reflected light, monitoring the image of the object contained in the reflected light to detect movement of the object on said operating surface, and generating cursor control signals in accordance with

detected movement of the object on said operating surface.

9. The optical cursor controller as claimed in Claim 8, wherein said housing has a lower side adapted to be placed on a support, and an upper side adapted for placing a user's hand thereon, said lens-mounting hole being formed in said upper side at a position within reach of a finger on the user's hand.

10. The optical cursor controller as claimed in Claim 8, further comprising a converging lens mounted in said housing and disposed between said operating lens and said light processing unit for converging the reflected light prior to receipt by said light processing unit.

11. The optical cursor controller as claimed in Claim 8, wherein said operating surface of said operating lens is a convex surface.

12. The optical cursor controller as claimed in Claim 8, wherein said operating lens has a magnifying power ranging from 1 to 6 times.

20 13. The optical cursor controller as claimed in Claim 8, wherein said operating lens has a thickness not greater than 2 millimeters.

14. The optical cursor controller as claimed in Claim 8, wherein said light source includes a light emitting diode.

25 15. The optical cursor controller as claimed in Claim 8, wherein said operating surface of said operating lens

and said light processing unit are spaced apart from each other at a distance ranging from 7.30 to 7.60 millimeters along an optical axis.

16. An electronic apparatus comprising a display module with a display screen, and an optical cursor controller operably associated with said display module for generating cursor control signals that control position of a cursor on said display screen of said display module, wherein said optical cursor controller includes:

10 an operating lens having an operating surface that permits movement of an object thereon;

15 a light source operable so as to radiate light that is directed to said operating lens, wherein reflected light reflected by the object on said operating surface contains an image of the object on said operating surface; and

20 a light processing unit for receiving the reflected light, monitoring the image of the object contained in the reflected light to detect movement of the object on said operating surface, and generating the cursor control signals in accordance with detected movement of the object on said operating surface.

17. The electronic apparatus as claimed in Claim 16, further comprising a host module connected to said display module and provided with a keyboard thereon, said optical cursor controller being mounted on said host module such that said operating surface of said

operating lens is accessible from an exterior of said host module.